

STIC Biotechnology Systems Branch

RAW SEQUENCE LISTING **ERROR REPORT**

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/550,525A
Source: IFWP
Date Processed by STIC: 10/12/06

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE **CHECKER VERSION 4.4.0 PROGRAM**, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebs/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 01/14/05):
U.S. Patent and Trademark Office, Mail Stop Sequence, Customer Window, Randolph Building, 401 Dulany Street, Alexandria, VA 22314

Revised 01/10/06

Raw Sequence Listing Error Summary

ERROR DETECTED

SUGGESTED CORRECTION

SERIAL NUMBER:

10/550,525A

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1 Wrapped Nucleics
 Wrapped Aminos The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."

- 2 Invalid Line Length The rules require that a line not exceed 72 characters in length. This includes white spaces.

- 3 Misaligned Amino
 Numbering The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.

- 4 Non-ASCII The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.

- 5 Variable Length Sequence(s) contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.

- 6 PatentIn 2.0
 "bug" A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) . Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.

- 7 Skipped Sequences
 (OLD RULES) Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence:
 (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
 (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)
 (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
 This sequence is intentionally skipped
 Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.

- 8 Skipped Sequences
 (NEW RULES) Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence.
 <210> sequence id number
 <400> sequence id number
 000

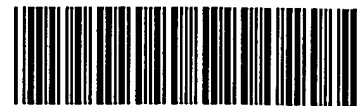
- 9 Use of n's or Xaa's
 (NEW RULES) Use of n's and/or Xaa's have been detected in the Sequence Listing.
 Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.
 In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.

- 10 Invalid <213>
 Response Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence. (see item 11 below)

- 11 Use of <220> Sequence(s) missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown."
 Please explain source of genetic material in <220> to <223> section or use "chemically synthesized" as explanation. (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32), also Sec. 1.823 of Sequence Rules

- 12 PatentIn 2.0
 "bug" Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.

- 13 Misuse of n/Xaa "n" can only represent a single nucleotide; "Xaa" can only represent a single amino acid



IFWP

RAW SEQUENCE LISTING

DATE: 10/12/2006

PATENT APPLICATION: US/10/550,525A

TIME: 09:36:42

Input Set : A:\Sequence listing.ST25.txt

Output Set: N:\CRF4\10122006\J550525A.raw

3 <110> APPLICANT: Emory University
 5 <120> TITLE OF INVENTION: CXCR4 Antagonists and Methods of Their Use
 7 <130> FILE REFERENCE: 50508-2331
 C--> 9 <140> CURRENT APPLICATION NUMBER: US/10/550,525A
 C--> 10 <141> CURRENT FILING DATE: 2005-09-22
 12 <160> NUMBER OF SEQ ID NOS: 20
 14 <170> SOFTWARE: PatentIn version 3.3
 16 <210> SEQ ID NO: 1
 17 <211> LENGTH: 14
 18 <212> TYPE: PRT
 19 <213> ORGANISM: Artificial
 21 <220> FEATURE:
 22 <223> OTHER INFORMATION: sequence of T140
 25 <220> FEATURE:
 26 <221> NAME/KEY: MISC_FEATURE
 27 <222> LOCATION: (3)..(3)
 28 <223> OTHER INFORMATION: X = Nal
 30 <220> FEATURE:
 31 <221> NAME/KEY: MISC_FEATURE
 32 <222> LOCATION: (8)..(8)
 33 <223> OTHER INFORMATION: X = dLys
 35 <220> FEATURE:
 36 <221> NAME/KEY: MISC_FEATURE
 37 <222> LOCATION: (12)..(12)
 38 <223> OTHER INFORMATION: X = Cit
 40 <400> SEQUENCE: 1
 W--> 42 Arg Arg Xaa Cys Tyr Arg Lys Xaa Pro Tyr Arg Xaa Cys Arg
 43 1 5 10
 46 <210> SEQ ID NO: 2
 47 <211> LENGTH: 14
 48 <212> TYPE: PRT
 49 <213> ORGANISM: Artificial
 51 <220> FEATURE:
 52 <223> OTHER INFORMATION: sequence of TN14003
 55 <220> FEATURE:
 56 <221> NAME/KEY: MISC_FEATURE
 57 <222> LOCATION: (3)..(3)
 58 <223> OTHER INFORMATION: X = Nal
 60 <220> FEATURE:
 61 <221> NAME/KEY: MISC_FEATURE
 62 <222> LOCATION: (6)..(6)
 63 <223> OTHER INFORMATION: X = Cit
 65 <220> FEATURE:

see pp 1-2, 4, 6
 Does Not Comply
 Corrected Diskette Needed

please
 give a
 further description
 (e.g., source of genetic
 material,
 function, etc.)

see item 11 on
 Enr summary
 sheet

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TIME: 09:36:42

Input Set : A:\Sequence listing.ST25.txt

Output Set: N:\CRF4\10122006\J550525A.raw

```

66 <221> NAME/KEY: MISC_FEATURE
67 <222> LOCATION: (8)..(8)
68 <223> OTHER INFORMATION: X = dLys
70 <220> FEATURE:
71 <221> NAME/KEY: MISC_FEATURE
72 <222> LOCATION: (12)..(12)
73 <223> OTHER INFORMATION: X = Cit
75 <400> SEQUENCE: 2
W--> 77 Arg Arg Xaa Cys Tyr Xaa Lys Xaa Pro Tyr Arg Xaa Cys Arg
78 1 5 10
81 <210> SEQ ID NO: 3
82 <211> LENGTH: 18
83 <212> TYPE: PRT
84 <213> ORGANISM: Artificial
86 <220> FEATURE:
87 <223> OTHER INFORMATION: sequence of T22
89 <400> SEQUENCE: 3
91 Arg Arg Trp Cys Tyr Arg Lys Cys Tyr Lys Gly Tyr Cys Tyr Arg Lys
92 1 5 10 15
95 Cys Arg
99 <210> SEQ ID NO: 4
100 <211> LENGTH: 21
101 <212> TYPE: DNA
102 <213> ORGANISM: Artificial
104 <220> FEATURE:
105 <223> OTHER INFORMATION: cDNA sequence segments of CXCR4
107 <400> SEQUENCE: 4
108 aataaaatct tctgcccac c 21
111 <210> SEQ ID NO: 5
112 <211> LENGTH: 21
113 <212> TYPE: DNA
114 <213> ORGANISM: Artificial
116 <220> FEATURE:
117 <223> OTHER INFORMATION: cDNA sequence segments of CXCR4
119 <400> SEQUENCE: 5
120 aaggaagctg ttggctgaaa a 21
123 <210> SEQ ID NO: 6
124 <211> LENGTH: 19
125 <212> TYPE: DNA
126 <213> ORGANISM: Artificial
128 <220> FEATURE:
129 <223> OTHER INFORMATION: CXCR4 cDNA target sequence
131 <400> SEQUENCE: 6
132 taactacacc gaggaaatg 19
135 <210> SEQ ID NO: 7
136 <211> LENGTH: 19
137 <212> TYPE: DNA
138 <213> ORGANISM: Artificial
140 <220> FEATURE:

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RAW SEQUENCE LISTING

DATE: 10/12/2006

PATENT APPLICATION: US/10/550,525A

TIME: 09:36:43

Input Set : A:\Sequence listing.ST25.txt

Output Set: N:\CRF4\10122006\J550525A.raw

```

141 <223> OTHER INFORMATION: CXCR4 cDNA target sequence
143 <400> SEQUENCE: 7
144 tcttcttaac tggcattgt 19
147 <210> SEQ ID NO: 8
148 <211> LENGTH: 19
149 <212> TYPE: DNA
150 <213> ORGANISM: Artificial
152 <220> FEATURE:
153 <223> OTHER INFORMATION: CXCR4 cDNA target sequences
155 <400> SEQUENCE: 8
156 tctttgccaa cgtcagtga 19
159 <210> SEQ ID NO: 9
160 <211> LENGTH: 19
161 <212> TYPE: DNA
162 <213> ORGANISM: Artificial
164 <220> FEATURE:
165 <223> OTHER INFORMATION: CXCR4 cDNA target sequences
167 <400> SEQUENCE: 9
168 gtttcagcac atcatggtt 19
171 <210> SEQ ID NO: 10
172 <211> LENGTH: 19
173 <212> TYPE: DNA
174 <213> ORGANISM: Artificial
176 <220> FEATURE:
177 <223> OTHER INFORMATION: CXCR4 cDNA target sequence
179 <400> SEQUENCE: 10
180 catcatgggtt ggccttatac 19
183 <210> SEQ ID NO: 11
184 <211> LENGTH: 19
185 <212> TYPE: DNA
186 <213> ORGANISM: Artificial
188 <220> FEATURE:
189 <223> OTHER INFORMATION: CXCR4 cDNA target sequences
191 <400> SEQUENCE: 11
192 tcctgcctgg tattgtcat 19
195 <210> SEQ ID NO: 12
196 <211> LENGTH: 19
197 <212> TYPE: DNA
198 <213> ORGANISM: Artificial
200 <220> FEATURE:
201 <223> OTHER INFORMATION: CXCR4 cDNA target sequences
203 <400> SEQUENCE: 12
204 tcctgtcctg ctattgcat 19
207 <210> SEQ ID NO: 13
208 <211> LENGTH: 19
209 <212> TYPE: DNA
210 <213> ORGANISM: Artificial
212 <220> FEATURE:
213 <223> OTHER INFORMATION: CXCR4 cDNA target sequences

```

RAW SEQUENCE LISTING

DATE: 10/12/2006

PATENT APPLICATION: US/10/550,525A

TIME: 09:36:43

Input Set : A:\Sequence listing.ST25.txt

Output Set: N:\CRF4\10122006\J550525A.raw

215 <400> SEQUENCE: 13
 216 gcatcgactc cttcatcct 19
 219 <210> SEQ ID NO: 14
 220 <211> LENGTH: 19
 221 <212> TYPE: DNA
 222 <213> ORGANISM: Artificial
 224 <220> FEATURE:
 225 <223> OTHER INFORMATION: CXCR4 cDNA target sequences
 227 <400> SEQUENCE: 14
 228 ggaaagcgag gtggacatt 19
 231 <210> SEQ ID NO: 15
 232 <211> LENGTH: 25
 233 <212> TYPE: DNA
 234 <213> ORGANISM: Artificial
 236 <220> FEATURE:
 237 <223> OTHER INFORMATION: siRNA what is its source?
 239 <400> SEQUENCE: 15
 240 aauaaaauucu uccugccac cdttdt 25
 243 <210> SEQ ID NO: 16
 244 <211> LENGTH: 25
 245 <212> TYPE: DNA
 246 <213> ORGANISM: Artificial
 248 <220> FEATURE:
 249 <223> OTHER INFORMATION: siRNA
 251 <400> SEQUENCE: 16
 252 aaggaagcug uggcugaaa adtdt 25
 255 <210> SEQ ID NO: 17
 256 <211> LENGTH: 20
 257 <212> TYPE: DNA
 258 <213> ORGANISM: Artificial
 260 <220> FEATURE:
 261 <223> OTHER INFORMATION: CXCR4-specific primers
 263 <400> SEQUENCE: 17
 264 gaaccctggt tccgtgaaga 20
 267 <210> SEQ ID NO: 18
 268 <211> LENGTH: 20
 269 <212> TYPE: DNA
 270 <213> ORGANISM: Artificial
 272 <220> FEATURE:
 273 <223> OTHER INFORMATION: CXCR4-specific primers
 275 <400> SEQUENCE: 18
 276 cttgtccgtc atgttctca 20
 279 <210> SEQ ID NO: 19
 280 <211> LENGTH: 20
 281 <212> TYPE: DNA
 282 <213> ORGANISM: Artificial
 284 <220> FEATURE:
 285 <223> OTHER INFORMATION: primer
 287 <400> SEQUENCE: 19

RAW SEQUENCE LISTING

DATE: 10/12/2006

PATENT APPLICATION: US/10/550,525A

TIME: 09:36:43

Input Set : A:\Sequence listing.ST25.txt

Output Set: N:\CRF4\10122006\J550525A.raw

```
288 gacaggatgc agaaggagat 20
291 <210> SEQ ID NO: 20
292 <211> LENGTH: 20
293 <212> TYPE: DNA
294 <213> ORGANISM: Artificial
296 <220> FEATURE:
297 <223> OTHER INFORMATION: primer
299 <400> SEQUENCE: 20
300 tgcttgctga tccacatctg 20
```

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/550,525A

DATE: 10/12/2006
TIME: 09:36:44

fyI
Input Set : A:\Sequence listing.ST25.txt
Output Set: N:\CRF4\10122006\J550525A.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; Xaa Pos. 3,8,12
Seq#:2; Xaa Pos. 3,6,8,12

Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete,
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20

VERIFICATION SUMMARY

DATE: 10/12/2006

PATENT APPLICATION: US/10/550,525A

TIME: 09:36:44

Input Set : A:\Sequence listing.ST25.txt

Output Set: N:\CRF4\10122006\J550525A.raw

L:9 M:270 C: Current Application Number differs, Replaced Current Application Number

L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:42 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0

L:77 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0